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## **ABSTRACT**

A system for determining the amount of processing that has been applied to watermarked signal. A steganographic signal is provided that includes an original signal and an embedded fragile watermark. fragile watermark is characterized by a low energy and a high redundancy in comparison to a robust watermark. The steganographic signal is communicated over a distribution channel to a decoder. At the decoder, a measure of a presence of the fragile watermark in the acquired steganographic signal is provided, along with an estimate of the fragility profile of the fragile watermark for this particular original signal. these factors, a estimate is made of the amount of processing that the steganographic signal has undergone. This processing can include, for example, A/D and D/A conversions, resampling, band-limiting, perceptual compression/decompression, etc. Optionally, the fragility profile is derived prior to the distribution , of the content and communicated by the steganographic signal for recovery by the decoder. Furthermore, a robust watermark may be provided in the steganographic signal that, e.g., designates the presence of the fragile watermark to a decoder.